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EXAMINER	
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ART UNIT	PAPER NUMBER
2167	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/675,197	ARMITANO, ROBERT	
	Examiner	Art Unit	
	Kimberly Lovel	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 August 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to the Amendment filed 2 August 2006.

2. Claims 1-35 are pending in this application. Claims 1, 10, 11, 19, 24, 30 and 34 are independent. In the Amendment filed 2 August 2006, claims 10, 21, 22, 30-32 and 35 have been amended. This action is made Non-Final.

3. The rejections of claims 1-4, 10-13, 19, 20, 23-26 and 30-32 as being anticipated by US Patent No 6,501,857 to Gotsmon et al; claims 5-9, 14-18, 21-22 and 33 as being unpatentable over US Patent No 6,501,857 to Gotsmon et al in view of US Patent No 7,037,196 to Kobayashi et al; and claims 27-29 and 34-35 as being unpatentable over US Patent No 6,501,857 to Gotsmon et al in view of US Patent No 6,674,769 to Viswanath have been withdrawn as necessitated by applicant's arguments.

Drawings

4. The objections to the drawings are withdrawn as necessitated by the amendment.

Claim Objections

5. The objections to claims 21 and 22 are withdrawn as necessitated by the amendment.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

MPEP 2106 IV.B.2.(b)

A claim that requires one or more acts to be performed defines a process. However, not all processes are statutory under 35 U.S.C. 101. Schrader, 22 F.3d at 296, 30 USPQ2d at 1460. To be statutory, a claimed computer-related process must either: (A) result in a physical transformation outside the computer for which a practical application is either disclosed in the specification or would have been known to a skilled artisan, or (B) be limited to a practical application.

Claim 1 recites a method for comparing a first content with a second content to determine whether the contents are identical, the method comprising the steps of: identifying a protocol encoding the first content and second content; computing a first signature of the first content and a second signature of the second content; and comparing the first computed signature with the second signature to determine whether the first content is identical to the second content.

In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim just merely compares two signatures to determine if the contents are identical. The method fails to produce an end result that is either stored or displayed. Therefore it

is unclear as to what kind of tangible output is obtained by these limitations. Examples of a tangible result are displaying the end result or storing the computed signatures. **Claims 2-9**, which are dependent on claim 1 fail to overcome the rejection and therefore are rejected on the same grounds as claim 1.

Claim 10 is directed towards content comparator executing on a computer. The applicant states that the MPEP 2106 IV, B.1 (a) (Page 2100-13 of the Eighth Edition) recites, "When a computer program is claimed in a process where the computer is executing the computer program's instructions, Office personnel should treat the claim as a process claim.

When considering claim 10 as a process claim, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim just merely compares two signatures. The method fails to produce an end result that is either stored or displayed. Therefore it is unclear as to what kind of tangible output is obtained by these limitations. Examples of a tangible result are displaying the end result or storing the computed signatures.

Claim 11 recites an apparatus for comparing a first content with a second content, the apparatus comprising: means for identifying a protocol encoding the first content and the second content; means for selecting a set of data segments from the first content and the second content; means for computing a signature of the first

content and a signature of the second content; and means for comparing the computed signature of the first content with the computed signature of the second content.

In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim just merely compares two signatures to determine if the contents are identical. The method fails to produce an end result that is either stored or displayed. Therefore it is unclear as to what kind of tangible output is obtained by these limitations. Examples of a tangible result are displaying the end result or storing the computed signatures. **Claims 12-18**, which are dependent on claim 11 fail to overcome the rejection and therefore are rejected on the same grounds as claim 11.

Claim 19 recites a method to compare a first content with a second content in a network storage environment, the method comprising the steps of: receiving the first content; computing a signature of the first content; comparing the computed signature of the first content with a signature of the second content; and identifying, if the computed signature of the first content matches the signature of the second content, that the first content is identical to the second content.

In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in

the claim just merely compares two signatures to determine if the contents are identical. The method fails to produce an end result that is either stored or displayed. Therefore it is unclear as to what kind of tangible output is obtained by these limitations. Examples of a tangible result are displaying the end result or storing the computed signatures. **Claims 20-23**, which are dependent on claim 19 fail to overcome the rejection and therefore are rejected on the same grounds as claim 19.

Claim 24 recites a method for identifying content using a protocol associated with the content as a signature, the method comprising the steps of: determining the protocol associated with the content; identifying a set of markers associated with the protocol; obtaining a set of markers from the content using the set of marker associated with the protocol; and generating a signature of the content using the identified markers.

In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim just merely generates a signature. The method fails to produce an end result that is either stored or displayed. Therefore it is unclear as to what kind of tangible output is obtained by these limitations. An examples of a tangible result would be displaying or storing the generated signature. **Claims 25-29**, which are dependent on claim 24 fail to overcome the rejection and therefore are rejected on the same grounds as claim 24.

Claim 30 is directed towards a protocol marker executing on a computer. The applicant states that the MPEP 2106 IV, B.1 (a) (Page 2100-13 of the Eighth Edition) recites, "When a computer program is claimed in a process where the computer is executing the computer program's instructions, Office personnel should treat the claim as a process claim.

When considering claim 30 as a process claim, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. For it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim just merely compares two signatures. The method fails to produce an end result that is either stored or displayed. Therefore it is unclear as to what kind of tangible output is obtained by these limitations. Examples of a tangible result are displaying the end result or storing the computed signatures. **Claims 31-33**, which are dependent on claim 30 fail to overcome the rejection and therefore are rejected on the same grounds as claim 30.

Claim 34 recites a network caching device adapted to utilize a signature associated with a protocol for caching decisions, the network caching device comprising: means for determining a protocol of new contents; means for computing a signature of the content; and means for comparing the computed signature of the new content with a signature of other content.

In the above limitation, there is no physical transformation being claimed, a practical application would be established by a useful, concrete and tangible result. For

it to be a tangible result, it must be more than a thought or a computation and must have a real world value rather than being an abstract idea. The invention as recited in the claim just merely compares signatures. The method fails to produce an end result that is either stored or displayed. Therefore it is unclear as to what kind of tangible output is obtained by these limitations. An examples of a tangible result would be displaying or storing the generated signature. **Claim 35**, which are dependent on claim 34 fail to overcome the rejection and therefore are rejected on the same grounds as claim 34.

To expedite a complete examination of the instant application, the claims rejected under 35 U.S.C. 101 (nonstatutory) above are further rejected as set forth below in anticipation of applicant amending these claims to place them within the four statutory categories of invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-26 and 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No 5,870,754 to Dimitrova et al (hereafter Dimitrova et al).

Referring to claim 1, Dimitrova et al disclose a method for comparing a first content [video clips] with a second content [query video clip] to determine whether the contents are identical (see abstract), the method comprising the steps of:

identifying a protocol encoding the first content [video clip] and second content [query video clip] (see column 5, lines 38-41 – "Then, in step 102, whether the video clip is at least partially encoded using the MPEG or the Motion JPEG encoding standard, is not encoded at all, or is encoded using different encoding standard, is determined;" MPEG and JPEG are types of protocols);

computing [generating] a first signature of the first content [video clip] and a second signature of the second content [video clip query] (see column 11, line 60 – column 12, line 30); and

comparing the first computed signature [database video clip signature] with the second signature [query video clip signature] to determine whether the first content [video clip] is identical to the second content [query video clip] (see column 8, lines 10-22 – "if the Hamming distance between two video clip signatures is small, then the similarity between the two video clip signatures is high;" therefore if the distance is zero then the video clips are identical).

Referring to claim 2, Dimitrova et al disclose the method of claim 1 further comprising the steps of:

selecting a first set of data segments [frames] from the first content and a second set of data segments [frames] from the second content (see column 5, lines 50-53); and

using the selected first set of data segments and the second set of data segments to compute [derive] the first signature and the second signature (see column 11, line 60 – column 12, line 30).

Referring to claim 3, Dimitrova et al disclose the method of claim 2 wherein the selected first set of data segments [frames] and second set of data segments [frames] comprise locations associated with one or more protocol markers [DC coefficients and motion vectors] (see column 5, lines 50-53 and column 7, lines 7-12).

Referring to claim 4, Dimitrova et al disclose the method of claim 1 wherein the step of computing the signature of the first content and the signature of the second content further comprises the steps of:

identifying one or more protocol markers [DC coefficients] associated with the first content [video clip] (see column 12, line 63 – column 13, line 20); and

identifying one or more protocol markers [DC coefficients] associated with the second content [query video clip] (see column 12, line 63 – column 13, line 20).

Referring to claim 5, Dimitrova et al disclose the method of claim 4 wherein the one or more protocol markers associated with the first content [video clip] comprises discrete cosine coefficients (see column 12, line 63 – column 13, line 20).

Referring to claim 6, Dimitrova et al disclose the method of claim 4 wherein the one or more protocol markers associated with the second content [query video clip] comprises discrete cosine coefficients (see column 12, line 63 – column 13, line 20).

Referring to claim 7, Dimitrova et al disclose the method of claim 4 wherein the one or more protocol markers associated with the first content [video clip] comprises motion vectors (see column 11, lines 21-22).

Referring to claim 8, Dimitrova et al disclose the method of claim 4 wherein the one or more protocol markers associated with the second content [query video clip] comprises motion vectors (see column 11, lines 21-22).

Referring to claim 9, Dimitrova et al disclose the method of claim 4 further comprising the steps of:

identifying a length [size of video clip in bytes and time length of video clip] of the first content [video clip] (see column 9, lines 44-50); and

identifying a length [size of video clip in bytes and time length of video clip] of the second content [query video clip] (see column 9, lines 44-50).

Referring to claim 10, Dimitrova et al disclose a content comparator executing on a computer, the content comparator adapted to compare first content with a second content (According to MPEP 2106 [R-3], the term "adapted to" is language that suggests or makes optional but does not require steps to be performed or does not limit the scope of the claim.), the comparator comprising:

a protocol identification module [software] (see column 9, lines 19-30) configured to identify a first protocol associated with the first content [video clip] and a second protocol associated with the second content [query video clip] (see column 5, lines 38-41 – "Then, in step 102, whether the video clip is at least partially encoded using the MPEG or the Motion JPEG encoding standard, is not encoded at all, or is encoded

using different encoding standard, is determined;" MPEG and JPEG are types of protocols);

a plurality of data segmentation modules [software] (see column 9, lines 19-30) configured to select a set of data segments [frames] from each of the first content [video clip] and the second content [query video clip] (see column 5, lines 50-53);

a plurality of signature computation modules [software] (see column 9, lines 19-30) configured to generate a first signature of the first content [video clip] and a second signature of the second content [query video clip] (see column 11, line 60 – column 12, line 30); and

a signature comparison module [software] (see column 9, lines 19-30) configured to compare the first signature [database video clip signature] with the second signature [query video clip signature] (see column 8, lines 10-22 – "if the Hamming distance between two video clip signatures is small, then the similarity between the two video clip signatures is high;" therefore if the distance is zero then the video clips are identical).

Referring to claim 11, Dimitrova et al disclose an apparatus for comparing a first content with a second content, the apparatus comprising:

means for identifying a protocol encoding the first content [video clip] and the second content [query video clip] (see column 5, lines 38-41 – "Then, in step 102, whether the video clip is at least partially encoded using the MPEG or the Motion JPEG encoding standard, is not encoded at all, or is encoded using different encoding standard, is determined;" MPEG and JPEG are types of protocols);

means for selecting a set of data segments [frames] from the first content [video clip] and the second content [query video clip] (see column 5, lines 50-53);

means for computing [deriving] a first signature of the first content [video clip] and a second signature of the second content [query video clip] (see column 11, line 60 – column 12, line 30); and

means for comparing the computed signature of the first content [database video clip signature] with the computed signature of the second content [query video clip signature] (see column 8, lines 10-22 – "if the Hamming distance between two video clip signatures is small, then the similarity between the two video clip signatures is high;" therefore if the distance is zero then the video clips are identical).

Referring to claim 12, Dimitrova et al disclose the apparatus of claim 11 wherein the selected data segments [frames] comprises locations [window positions] associated with one or more protocol markers [DC coefficients and motion vectors] (see column 5, lines 50-53).

Referring to claim 13, Dimitrova et al disclose the method of claim 11 wherein the means for computing the signature of the first content and the signature of the second content further comprises the steps of:

means for identifying one or more protocol markers [DC coefficients] associated with the first content [video clip] (see column 12, line 63 – column 13, line 20); and

means for identifying one or more protocol markers [DC coefficients] associated with the second content [query video clip] (see column 12, line 63 – column 13, line 20).

Referring to claim 14, Dimitrova et al disclose the apparatus of claim 13 wherein the one or more protocol markers associated with the first content [video clip] comprises discrete cosine coefficients (see column 12, line 63 – column 13, line 20).

Referring to claim 15, Dimitrova et al disclose the apparatus of claim 13 wherein the one or more protocol markers associated with the second content [query video clip] comprises discrete cosine coefficients (see column 12, line 63 – column 13, line 20).

Referring to claim 16, Dimitrova et al disclose the apparatus of claim 13 wherein the one or more protocol markers associated with the first content [video clip] comprises motion vectors (see column 11, lines 21-22).

Referring to claim 17, Dimitrova et al disclose the apparatus of claim 13 wherein the one or more protocol markers associated with the second content [query video clip] comprises motion vectors (see column 11, lines 21-22).

Referring to claim 18, Dimitrova et al disclose the apparatus of claim 13 further comprising the steps of:

identifying a length [size of video clip in bytes and time length of video clip] of the first content [video clip] (see column 9, lines 44-50); and

identifying a length [size of video clip in bytes and time length of video clip] of the second content [query video clip] (see column 9, lines 44-50).

Referring to claim 19, Dimitrova et al disclose a method to compare a first content [query video clip] with a second content in a network storage environment (see column 8, lines 43-60), the method comprising the steps of:

receiving the first content [step 101] (see column 5, lines 36-38);

computing [generating] a signature of the first content (see column 11, line 60 – column 12, line 30);

comparing the computed signature of the first content [query video clip signature] with a signature of the second content [video clip signature] (see column 8, lines 10-22); and

identifying, if the computed signature of the first content matches the signature of the second content, that the first content is identical to the second content (see column 8, lines 10-22 – "if the Hamming distance between two video clip signatures is small, then the similarity between the two video clip signatures is high; therefore if the distance is zero then the video clips are identical).

Referring to claim 20, Dimitrova et al disclose the method of claim 19 wherein the step of computing the signature of the first further comprises the steps of:

identifying a set of protocol markers [DC coefficients] associated with the content (see column 12, line 63 – column 13, line 20); and

generating the signature from the identified set of protocol markers [DC coefficients] (see column 11, line 60 – column 12, line 30).

Referring to claim 21, Dimitrova et al disclose the method of claim 20 wherein the set of protocol markers further comprise a set of discrete cosine coefficients (see column 12, line 63 – column 13, line 20).

Referring to claim 22, Dimitrova et al disclose the method of claim 20 wherein the set of protocol markers further comprises one or more motion vectors (see column 11, lines 21-22).

Referring to claim 23, Dimitrova et al disclose the method of claim 19 wherein a size [size of video clip in bytes and time length of video clip] of the received content is utilized in creating the signature (see column 9, lines 44-50).

Referring to claim 24, Dimitrova et al disclose a method for identifying content using a protocol associated with the content as a signature, the method comprising the steps of:

determining the protocol associated with the content [video clips] (see column 5, lines 38-41 – "Then, in step 102, whether the video clip is at least partially encoded using the MPEG or the Motion JPEG encoding standard, is not encoded at all, or is encoded using different encoding standard, is determined;" MPEG and JPEG are types of protocols);

identifying a set of markers associated with the protocol (see column 5, lines 18-27);

obtaining a set of markers [DC coefficients and motion vectors] from the content using the set of marker associated with the protocol (see column 5, lines 50-53); and

generating a signature of the content using the identified markers [DC coefficients] (see column 11, line 60 – column 12, line 30).

Referring to claim 25, Dimitrova et al disclose the method of claim 24 wherein the identified markers [DC coefficients and motion vectors] are within a subset [frames] of the entire content [video clip] (see column 5, lines 46-53).

Referring to claim 26, Dimitrova et al disclose the method of claim 24 wherein a size associated with the content is utilized to uniquely identify the content [video clips] (see column 9, lines 44-50).

Referring to claim 30, Dimitrova et al disclose a protocol marker identifier executing on computer for generating a signature of a content comprising:

a data segmentation module [software] (see column 9, lines 19-30) configured to select a set of data segments [frames] from the content [video clips] (see column 5, lines 50-53); and

a signature computation module [software] (see column 9, lines 19-30) configured to generate the signature from the set of data segments [frames] (see column 11, line 60 – column 12, line 30).

Referring to claim 31, Dimitrova et al disclose the protocol marker identifier of claim 30 further comprising a protocol identification module [software] (see column 9, lines 19-30) configured to identify a protocol associated with the content [video clips] (see column 5, lines 38-41 – "Then, in step 102, whether the video clip is at least partially encoded using the MPEG or the Motion JPEG encoding standard, is not encoded at all, or is encoded using different encoding standard, is determined;" MPEG and JPEG are types of protocols);

Referring to claim 32, Dimitrova et al disclose the protocol marker identifier of claim 30 wherein the signature comprises a set of protocol markers [DC coefficients and motion vectors] (see column 5, lines 50-53).

Referring to claim 33, Dimitrova et al disclose the protocol marker identifier of claim 32 wherein the set of protocol markers comprises a set of discrete cosine transform coefficients (see column 5, lines 50-53 and column 12, line 63 – column 13, line 20).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 5,870,754 to Dimitrova et al as applied to claim 24 above, and further in view of US Patent No 6,674,769 to Viswanath (hereafter Viswanath).

Referring to claim 27, Dimitrova et al disclose a method for identifying content using a protocol associated with the content as a signature. However, Dimitrova et al fail to explicitly teach the further limitation wherein the signature is utilized in a network caching device to determine whether data should be forwarded from the network caching device. Viswanath discloses a method for identifying content using signatures

in a network that utilizes caching (see abstract), including the further limitation wherein the signature is utilized in a network caching device to determine whether data should be forwarded from the network caching device (see column 2, lines 56-64 – caching data) in order to increase the abilities of electronic systems to detect the presence of predefined objects.

It would have been obvious to one of ordinary skill at the time the invention was made to use the Viswanath's concept of network caching as a subcomponent to Dimitrova et al's method for identifying content using a protocol associated with the content as a signature. One would have been motivated to do so in order to increase the abilities of electronic systems to detect the presence of predefined objects.

Referring to claim 28, Dimitrova et al disclose a method for identifying content using a protocol associated with the content as a signature. However, Dimitrova et al fail to explicitly teach the further limitation wherein the signature is utilized to determine if a local copy of the content should be accessed. Viswanath discloses a method for identifying content using signatures in a network that utilizes caching (see abstract), including the further limitation wherein the signature is utilized to determine if a local copy of the content should be accessed (see column 6, lines 46-56 – accessing local copy) in order to increase the abilities of electronic systems to detect the presence of predefined objects.

It would have been obvious to one of ordinary skill at the time the invention was made to use the Viswanath's concept of accessing a local copy as a subcomponent to Dimitrova et al's method for identifying content using a protocol associated with the

content as a signature. One would have been motivated to do so in order to increase the abilities of electronic systems to detect the presence of predefined objects.

Referring to claim 29, Dimitrova et al disclose a method for identifying content using a protocol associated with the content as a signature. However, Dimitrova et al fail to explicitly teach the further limitation wherein the signature is utilized to determine if a remote copy of the content should be accessed. Viswanath discloses a method for identifying content using signatures in a network that utilizes caching (see abstract), including the further limitation wherein the signature is utilized to determine if a remote copy of the content should be accessed (see column 6, lines 46-56 – accessing remote copy) in order to increase the abilities of electronic systems to detect the presence of predefined objects.

It would have been obvious to one of ordinary skill at the time the invention was made to use the Viswanath's concept of accessing a remote copy as a subcomponent to Dimitrova et al's method for identifying content using a protocol associated with the content as a signature. One would have been motivated to do so in order to increase the abilities of electronic systems to detect the presence of predefined objects.

11. Claims 34-35 rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No 5,870,754 to Dimitrova et al in view of US Patent No 6,674,769 to Viswanath.

Referring to claim 34, Dimitrova et al disclose

means for determining a protocol of new contents [video clips] (see column 5, lines 38-41 – "Then, in step 102, whether the video clip is at least partially encoded using the MPEG or the Motion JPEG encoding standard, is not encoded at all, or is encoded using different encoding standard, is determined;" MPEG and JPEG are types of protocols);

means for computing [generating] a signature of the content (see column 11, line 60 – column 12, line 30); and

means for comparing the computed signature [query video clip signature] of the new content with a signature of other content [video clip signature] (see column 8, lines 10-22).

However, Dimitrova et al fail to explicitly disclose the further limitation of a network caching device adapted to (According to MPEP 2106 [R-3], the term "adapted to" is language that suggests or makes optional but does not require steps to be performed or does not limit the scope of the claim.) utilize a signature associated with a protocol for caching decisions. Viswanath discloses a device for identifying content using signatures, including the further limitation wherein the device is a network caching device [policy cache 84] (see column 6, lines 46-56) in order to increase the efficiency of accessing data since a cache provides a memory area where frequently accessed data can be stored for rapid access.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the network caching device of Viswanath in place of the repository of Dimitrova et al. One would have been motivated to do so in order to

increase the efficiency of accessing data since a cache provides a memory area where frequently accessed data can be stored for rapid access.

Referring to claim 35, the combination of Dimitrova et al and Viswanath discloses the network caching device of claim 34 wherein the means for computing a signature further comprises:

means for identifying a set of markers associated with the protocol associated with the content (Dimitrova et al: see column 5, lines 18-27); and

means for obtaining appropriate markers [DC coefficients and motion vectors] associated with the content (Dimitrova et al: see column 5, lines 50-53).

Response to Arguments

12. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- US Patent No 7,062,470 titled "Transaction Signature" to Prasad et al.
- US Patent No 5,643,086 titled "Electronic Casino Gaming Apparatus with Improved Play Capacity, Authentication and Security" to Alcorn et al.
- US Patent No 5,960,081 titled "Embedding a Digital Signature in a Video Sequence" to Vynne et al.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Lovel whose telephone number is (571) 272-2750. The examiner can normally be reached on 8:00 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on (571) 272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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10 October 2006
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12 October 2006

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